MATERIAL SAFETY DATA SHEET

LOUISIANA SOIL PRODUCTS OF RUSTON, LLC

SECTION I – MANUFACTURER'S INFORMATION

MANUFACTURER'S NAME	LOUISIANA SOIL PRODUCTS PO Box 1718 Ruston, LA 71273
EMERGENCY TELEPHONE NUMBER	318-251-0228
TELEPHONE NUMBER FOR INFORMATION	318-251-0228
MSDS REVISION DATE	6/21/2002

SECTION II – HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

TRADE NAMES:
Delta Premium Top Soil
Delta Select Top Soil
Delta Rich Blend Top Soil

COMPONENT(S) CHEMICAL NAME	CAS REGISTRY NO.	% (APPROX)	EXPOSURE LIMITS
Proprietary Mixture	none	100	See Section 6
*composition varies naturally, typically contains small amounts of quartz (crystalline silica)	14808-60-7	>1	See Section 6

SECTION III – PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT	N/E
VAPOR PRESSURE (mmHg)	Not determined
VAPOR DENSITY (Air = 1)	Not determined
SPECIFIC GRAVITY	2.5
FREEZING POINT	N/E
PHYSICAL STATE	Solid (Granules)
SOLUBILITY IN WATER	Negligible
APPEARANCE AND ODOR	Brown Granules, Earthy Odor
PHYSICAL STATE	Not determined
BULK DENSITY	30-35 lbs./ft3

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED)	Not flammable
FLAMMABLE LIMITS IN AIR	Not applicable
EXTINGUISHING MEDIA	None required
HAZARDOUS PRODUCTS OF COMBUSTION	May produce nitrous oxides. Use SCBA/bunker gear in extreme fire conditions or confined spaces.

SECTION V – REACTIVITY DATA

STABILITY	Stable
INCOMPATIBILITY (MATERIALS TO AVOID)	Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganesxe trifluoride, and oxygen difluoride may cause fire and/or explosions. Silica dissolves in hydrofluoric acid producing a corrosive gas: silicon tetrafluoride.
HAZARDOUS DECOMPOSITION PRODUCTS	Silica-containing respirable dust particles may be generated by handling. When heated, quartz is slowly transformed into tridymite (above 860 deg C/1580 deg F) and cristobalite (above 1470 deg C/2678 deg F). Both tridymite and cristobalite are considered more fibrogenic to the lungs than quartz.
HAZARDOUS POLYMERIZATION	Not know to polymerize.

SECTION VI – TOXICITY AND FIRST AID

EXPOSURE LIMITS: (When exposure to this product and other chemicals is concurrent, the exposure limit must be defined in the workplace.)
Unless specified otherwise, limits are expressed as eight-hour time-weighted averages (TWA). Limits for cristobalite and tridymite (other forms of crystalline silica) are equal to one-half of the limits for quartz.
ABBREVIATIONS: TLV = threshold limit value of the American Conference of Governmental Industrial Hygienists (ACGIH); MSHA PEL= permissible exposure limit of the Mine Safety and Health Administration (MSHA); OSHA PEL= permissible exposure limit of the Occupational Safety and Health Administration (OSHA); mg/m3 = milligrams of substance per cubic meter of air.

Other Particulates: TLV = 10 mg/m3 (inhalable/total particulate, not otherwise classified), TLV = 3 mg/m3 (respirable particulate, not otherwise classified); OSHA PEL = 15 mg/m3 (respirable particulate, not otherwise regulated)

Respirable Crystalline Silica (quartz): TLV = 0.5 mg/m3; MSHA and OSHA PEL = 10 mg/m3 (%siO2+2); MSHA-Proposed and OSHA-Proposed PEL = 0.1 mg/m3

Respirable Dust: MSHA and OSHA PEL = 10 mg/m3 (%SiO2+2)
Total Dust: MSHA PEL = 30 mg/m3 ()%SiO2+3); OSHA PEL = 30 mg/m3 (%SiO2+2)

ACG1H, MSHA, and OSHA have determined that adverse effects are not likely to occur in the workplace provided exposure levels do not exceed the appropriate TLVs/PELs. However, because of the wide variation in individual susceptibility, lower exposure limits may be appropriate for some individuals including persons with pre-existing medical conditions such as those described below.

Medical Conditions Aggravated by Exposure: Inhaling respirable particulate may aggravate existing repiratory system disease(s) and/or dysfunction(s). Exposure to particulate may aggravate existing skin and/or eye conditions.

Eye Contact: Direct contact with particulate may cause irritation by mechanical abrasion.

Skin Contact: Direct contact may cause irritation by mechanical abrasion.

Skin Absorption: Not expected to be a significant exposure route.

Ingestion: Do not ingest! Ingestion of large amounts may cause gastrointestinal irritation and blockage. This product contains organic materials (such as compost, forest products, manure.) All organic materials contain natural inherent bacteria for the breakdown or decomposition of organic matter.

Inhalation: Particulate may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits.

Use of this product is not believed to cause additional acute toxic effects. However, repeated overexposures to very high levels of a respirable crystalline silica (quartz, cristobalite, tridymite) for periods as short as six months have caused acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include (but are not limited to): shortness of breath, cough, fever, weight loss, and chest pain.

FIRST AID:

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Skin: Wash with soap and water. Contact a physician if irritation persists or later develops.

Ingestion: If person is conscious, give large quantity of water and induce vomiting; however, never attempt to make an unconscious person drink or vomit. Get immediate medical attention.

Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops.

For emergencies, contact your local poison control center or call the national poison control center at 800-222-1222 to locate a poison control center near you.

Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has cause silicosis, a lung disease. Not all individuals with silicosis will exhibit symptoms of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposure has ceased. Symptoms of silicosis may include, but are not limited to, the following: shortness of breath; difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Smoking may increase the risk of developing lung disorders, including emphysema and lung cancer. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

Respirable dust containing newly broken silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older silica particles of similar size. Respirable silica particles which had aged for sixty days or more showed less lung injury in animals than equal exposures of respirable dust containing newly broken particles of silica.

There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with adverse health effects involving the kidney, scloroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) and other automimmune disorders. However, this evidence has been obtained primarily from case reports involving individuals working in high exposure situations or those who have already developed silicosis; and therefore, this evidence does not conclusively prove a causal relationship between silica or silicosis and these adverse health effects. Several studies of persons with silicosis also indicate an increased risk of developing lung cancer, a risk that increases with the duration of exposure. Many of these studies of silicotics do not account for lung cancer confounders, especially smoking.

This product is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). In October 1996, an IARC Working Group re-assessing crystalline silica, a component of this product, designated crystalline silica as carcinogenic (Group I). The NTP's Report on Carcinogens, 9th edition, lists repirable crystalline silica as a "known human carcinogen." In year 2000, the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline silica (quartz) as a suspected human carcinogen (A-2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN EVENT MATERIAL IS RELEASED OR SPILLED	Sweep up material and place in a disposable container.
WASTE DISPOSAL METHOD	This material (as packaged) is not considered a hazardous waste. Be aware that the waste owner has responsibility for final disposal. Regulations may also apply to empty containers, liners or rinsate. Laws may change or be reinterpreted; state and local regulations may be different from federal regulations. This information applies to materials as manufactured; contamination or processing may change waste characteristics and requirements.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Store in well-closed, upright original container in a cool, dry, well-ventilated area out of reach of children. Do not contaminate water, food or feed by storage or disposal. Do not reuse container. Do not store near food-stuffs.

SECTION VIII – CONTROL MEASURES

RESPIRATORY PROTECTION	In typical applications no engineering controls should be needed; if industrial hygiene surveys show that occupational exposure limits may be exceeded, use NIOSH approved respirator with dust/mist cartridges.
PROTECTIVE GLOVES	Protective gloves recommended.
EYE PROTECTION	Recommended to avoid splashing of material directly into eyes.

SECTION IX – ECOLOGICAL INFORMATION

ECOTOXICITY	No data available.
ENVIRONMENTAL FATE	No data available.

SECTION X – TRANSPORT INFORMATION

DOT Hazard Description	Not Regulated.

SECTION XI – REGULATORY INFORMATION

SARA Title III	Not Regulated.
Individual States	States such as Pennsylvania, New Jersey, California, Vermont, Massachusetts and Rhode Island may all have components of this product listed; consult specific state regulatory requirements for additional information.

For additional information, refer to the American Conference of Governmental Industrial Hygienists (ACGIH) documentation of TLV's (Threshold Limit Values) for individual components and the DOT Emergency Response Guidebook.

This information is provided in good faith, but without express or implied warranty.